

### Office Action Summary

**Application No.**

10/549,668

**Applicant(s)**

SHOSHI, SATORU

**Examiner**

ANISH DESAI

**Art Unit**

1788

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-8, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6-8, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date 20110315
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***DETAILED ACTION***

1. In view of newly found prior art of Kondo et al. (EP 1 002 845A2), the finality of the Office action mailed on 12/09/2010 is withdrawn. The after-final amendment submitted on 03/09/2011 is entered into consideration. Further, support for claim 1 amendment is found e.g. in paragraph 0035 of Pg Pub. Support for new claim 11 is found in claims 1 and 8, and paragraph 0035.
2. In view of applicant's amendment and response, all of the 112-first and second paragraph rejections as set forth in the Final Office action (FOA) mailed on 12/09/2010 are withdrawn.
3. A new 103(a) rejection is made based on Kondo et al. (EP 1 002 845A2) in view of Satoru Mori (JP 11-189762) (English translation previously provided).
4. **The indicated allowability of independent claim 10 is withdrawn in view of the newly discovered reference(s) to Kondo et al. (EP 1 002 845A2). Rejections based on the newly cited reference(s) follow.**

***Specification***

5. The abstract of the disclosure is objected to because it exceeds 15 lines of text (more than 150 words). Correction is required. See MPEP § 608.01(b). In order to overcome this objection, at line 15 in the abstract, applicant could delete the following: "The pressure sensitive adhesive sheet for protecting a surface of

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the present invention can give excellent scratch resistance, water resistance and chemical resistance to the surface of image papers such as a photograph output by a printer and a display, can be reduced in distortion, and can achieve an improved...the pressure sensitive adhesive sheet for protecting a surface."

6. Additionally, in abstract at line 4, replace "protect" with "protective".

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1, 3, 4, 7, 8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (EP 1 002 845A2) in view of Satoru Mori (JP 11-189762).**

8. With respect to claims 1 and 11, Kondo discloses a pressure sensitive adhesive tape comprising a **substrate (equated to applicant's hard coat layer)**, an intermediate layer on the substrate, and a PSA layer on the intermediate layer (abstract).

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9. As composition of the intermediate layer, Kondo discloses that material for intermediate layer is not particularly limited and it can be selected from various PSA and UV curable resins that are employed in the preparation of substrate (0032). It is noted that Kondo uses energy ray curable urethane acrylate oligomers in the preparation of PSAs and substrate (hard coat) (0023, 0039-0042). Accordingly, **the intermediate layer of Kondo is equated to applicant's cured urethane (meth) acrylate layer.**

10. Further, regarding claims 1 and 7, the urethane acrylate oligomer of Kondo has weight average molecular weight of 1,000 to 50,000 (0042 and 0079). Additionally, the urethane acrylate oligomer of Kondo is formed of same material as that of disclosed by applicant (see 0023 and 0041 of Kondo and 0016-0017 of pg pub of present application). As such, the urethane acrylate of Kondo equates to claimed difunctional urethane (meth) acrylate.

11. Moreover, regarding claims 1 and 8, given that the "one or more polymerizable compounds" are optional, the concentration of urethane acrylate of Kondo by itself would be 100% by mass and it meets content of the difunctional urethane (meth) acrylate of 80% or more by mass and 95 or more percent by mass as claimed.

12. As to claim 3, the thickness of the intermediate layer (cured urethane methacrylate layer) is e.g. 5 to 100  $\mu\text{m}$  (0058).

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13. As to claim 4, the substrate (hard coat layer) of Kondo comprises fillers and additives (0052-0053).

14. As to claim 10, it is noted that this claim is similar to claim 1 except that it recites that the cured urethane (meth)acrylate is formed by curing a curable composition "**consisting of**" a difunctional urethane (meth) acrylate. It is noted that Kondo discloses that "It is often difficult to obtain film only from above urethane acrylate oligomers..." (see 0043). This is interpreted as while it may be difficult to form the film from urethane acrylate it is not impossible to do so and as such Kondo meets "consisting of" requirement with respect to urethane acrylate in claim 10 given that there are no other required components.

15. **The difference between the claimed invention and the prior art of Kondo is that Kondo is silent as to teaching the composition of the hard coat as claimed (claims 1 and 10) and the thickness of the hard coat layer as claimed (see claim 3).**

16. However, Satoru discloses resin composition that is used in formation of a substrate and adhesive sheet using said substrate (page 3 0001). Further, the substrate of Satoru is formed of urethane acrylate oligomer and a reactive diluent (page 4 0005). As a reactive diluent, Satoru discloses polyfunctional acrylates with two, three or more acrylate groups per molecule (page 8 0016).

Additionally, the functional acrylates as disclosed by Satoru at page 4 paragraph

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0019 meet claimed hard coating compounds such as trimethylol propane trimethacrylate, pentaerythritol tetramethacrylate etc. Further, the thickness of the adhesive sheet substrate is usually between 1 to 1,000  $\mu\text{m}$  and preferably 10-500  $\mu\text{m}$  (see page 13 0027).

17. It is noted that Kondo at 0044 discloses that "According to necessity, use may be made of polyfunctional (meth) acrylates" in order to form a substrate film (hard coat) of urethane acrylate. Satoru discloses a substrate film of urethane acrylate with polyfunctional acrylates.

18. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the urethane acrylate substrate film (hard coat) of Kondo with the polyfunctional methacrylates and thickness as taught by Satoru, motivated by the desire to easily form the substrate film and provide necessary strength.

19. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (EP 1 002 845A2) in view of Satoru Mori (JP 11-189762) as applied to claim 1 above, and further in view of further in view of Furuya et al. (US 6,150,026).**

20. Kondo is silent as to teaching the protecting film laminated on the surface of the hard coat layer.

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21. However, the reference of Furuya is relied to show that it is known to apply protective layer on the surface of a hard coat layer. Specifically, Furuya discloses a polypropylene based resin exterior panel that includes a hard coat layer (column 1 lines 5-20 and column 2 lines 45-50). Further, at column 7 lines 27-35, Furuya teaches of forming of a protective film layer on the surface of the hard coat layer to protect the surface of the exterior panels from dirt, dust etc. (column 7 lines 25-30).

22. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a protective film layer on the hard coat layer of the PSA sheet, motivated by the desire to protect the hard coating layer from scratches and other damage.

### ***Conclusion***

**The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.**

**(A) Horigome et al. (US 2006/0134406 A1) discloses PSA sheet.**

**(B) Kondo et al. (US 6,524,701 B1) discloses PSA sheet.**

**(C) Tsuchiya et al. (US 6,329,041 B1) discloses hard coat film.**

**(D) Janssen et al. (US 6,461,709 B1) discloses graffiti and/or environmental protective article.**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1788

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1787